1-100. (CANCELED).

101. (NEW) A method of monitoring a patient under medical care, the method comprising steps of:

providing a sensor arrangement which is arranged to detect motion of the head, limbs and trunk of the patient, and respiratory motion of the patient and produce a motion signal in response to the motion,

monitoring the motion signal,

analysing the motion signal to determine the rate of the motion signal and determine whether the rate of the motion signal is indicative of patient arousal, and

providing an alarm should the monitored motion be indicative of patient arousal.

102. (NEW) The method in accordance with claim 101, wherein the head, limb, trunk motion and respiratory motion are monitored by the same sensor arrangement.

103. (NEW) The method in accordance with claim 101, wherein the head, limb, trunk motion and the respiratory motion are monitored by separate sensor arrangements.

104. (NEW) The method in accordance with claim 101, wherein the motion signal is a single motion signal generated from a combination of head, limb, trunk motion and respiratory motion.

105. (NEW) The method in accordance with claim 101, wherein the motion signal includes a first motion signal generated from the head, limb, trunk motion and a second motion signal generated from the respiratory motion.

106. (NEW) The method in accordance with claim 101, wherein it is determined that the rate of the motion signal is indicative of patient arousal if the rate of the motion signal increases beyond a predetermined threshold.

107. (NEW) The method in accordance with claim 101, wherein the sensor arrangement includes a pad on which the patient lies, the pad mounting a sensor for monitoring motion of the patient.

108. (NEW) The method in accordance with claim 101, further comprising the step of providing an alarm should the motion of the patient cease to be detected.

109. (NEW) The method in accordance with claim 108, further comprising the step of providing an alarm should the motion of the patient fall below a predetermined value.

110. (NEW) The method in accordance with claim 101, further comprising the step of monitoring the body temperature of the patient and providing an alarm should the body temperature rise above or below predetermined values.

111. (NEW) The method in accordance with claim 110, wherein a temperature sensor is provided proximate or within the patient to constantly monitor the temperature.

112. (NEW) The method in accordance with claim 111, wherein a control means is arranged to receive signals from the sensor arrangement and temperature sensor, and process those signals to provide the alarms.

113. (NEW) The method in accordance with claim 112, wherein the control means is provided housed in a single unit.

114. (NEW) The method in accordance with claim 101, wherein the patient is a non-human animal.

115. (NEW) The method in accordance with claim 114, wherein the non-human animal is monitored during recovery from anaesthesia or when under sedation.

116. (NEW) The method in accordance with claim 101, wherein the patient is a human.

117. (NEW) The method in accordance with claim 101, comprising the step of assessing a baseline motion rate which corresponds to the motion rate of the patient at the time the baseline assessment is made, and setting the predetermined threshold at a predetermined rate above the baseline level.

118. (NEW) The method in accordance with claim 107, comprising the further step of providing a separate respiratory motion arrangement for measuring respiratory motion of the patient, and comparing a signal from the respiratory motion sensor with the signal from the pad sensor, to obtain an indication of bodily motion of the patient.

119. (NEW) A device for monitoring a patient under medical care, the device comprising a sensor arrangement which is arranged to detect motion of the head, limbs and trunk of the patient, and respiratory motion of the patient and produce a motion signal in response to the motion, and a control means which is arranged to process

signals received from the sensor arrangement and analyse the motion signal to determine the rate of the motion signal and determine whether the rate of the motion signal is indicative of a patient arousal, and to provide an alarm should the detected motion be indicative of patient arousal.

120. (NEW)   The device in accordance with claim 119, wherein the sensor arrangement is a single sensor arrangement for detecting the head, limb, trunk motion and respiratory motion.

121. (NEW)   The device in accordance with claim 119, wherein the sensor arrangement includes separate sensor arrangements for monitoring head, limb, trunk motion and respiratory motion, respectively.

122. (NEW)   The device in accordance with claim 119, wherein the motion signal is a single motion signal generated from a combination of head, limb, trunk motion and respiratory motion.

123. (NEW)   The device in accordance with claim 119, wherein the motion signal includes a first motion signal generated from the head, limb, trunk motion and a second motion signal generated from the respiratory motion.

124. (NEW)   The device in accordance with claim 119, wherein the control means is arranged to determine that the detected motion is indicative of patient arousal if the rate of the motion signal increases beyond a pre-determined threshold.

125. (NEW)   The device in accordance with claim 119, wherein the sensor arrangement includes a pad on which the patient lies, the pad mounting a sensor for monitoring motion of the patient.

126. (NEW)   The device in accordance with claim 119, wherein the control means is also arranged to process the signals from the motion monitor to determine whether the motion of the patient has ceased and to produce an alarm if the motion of the patient ceases.

127. (NEW)   The device in accordance with claim 126, wherein the device is arranged to provide an alarm should the signal indicate that the motion of the patient has fallen below a predetermined level.

128. (NEW)   The device in accordance with claim 127 including input means enabling the predetermined level to be set.

129. (NEW) The device in accordance with claim 119, the control means being automatically arranged to provide default settings for the predetermined level.

130. (NEW) The device in accordance with claim 119, including a baseline set means, which when actuated presets a baseline motion rate which corresponds to the motion rate of the patient at the time the baseline set function is actuated, the predetermined level being taken from the baseline level.

131. (NEW) The device in accordance with claim 119, wherein the control means is arranged to receive input from a temperature sensor sensing the body temperature of the patient, and is arranged to provide an alarm should the patient's body temperature fall outside predetermined values.

132. (NEW) The device in accordance with claim 119, arranged for use with non-human animal patients.

133. (NEW) The device in accordance with claim 132, wherein the control means and a display for providing visual indication of patient parameters are mounted in a housing which is adapted to be mounted to a cage for containing the non-human animal patient.

134. (NEW) The device in accordance with claim 119, wherein the device is arranged for a human patient.

135. (NEW) The device in accordance with claim 125, comprising a further sensor arrangement for monitoring respiratory motion of the patient, the control means being arranged to compare the signal from the further sensor arrangement and the signal from the sensor arrangement, to give an indication of the bodily motion of the patient.

136. (NEW) The system for monitoring non-human animal patients recovering from anaesthesia, comprising a plurality of devices in accordance with claim 132, the sensor arrangement being mounted in each case in a cage for retaining an animal recovering from anaesthesia.

137. (NEW) The method in accordance with claim 119, wherein the step of analyzing the motion of the patient involves tracking the rate of motion over a period of time.

138. (NEW) The method in accordance with claim 137, comprising the further step of applying trend analysis to monitor trends in the motion of the patient.

139. (NEW) A method of monitoring a patient under medical care, the method comprising the steps of:

providing a sensor arrangement which is arranged to detect motion of the head, limbs and trunk of the patient, and produce a motion signal in response to the motion of a patient, and

analysing the motion signal to determine whether or not the patient is displaying signs of painfulness.

140. (NEW) The method in accordance with claim 139, wherein if the analysis of the motion signal determines that the motion includes rhythmic, repetitive motion of the limbs, head, or trunk, a determination is made that the patient is displaying signs of painfulness.

141. (NEW) The method in accordance with claim 139, wherein the step of detecting motion of the patient includes detecting respiratory motion of the patient and producing a motion signal in response to the respiratory motion.

142. (NEW) The method in accordance with claim 141, wherein the respiratory motion and head, limb, trunk motion are monitored by the same sensor arrangement.

143. (NEW) The method in accordance with claim 141, wherein the respiratory motion and head, limb, trunk motion are monitored by separate sensor arrangements.

144. (NEW) The method in accordance with claim 141, wherein the motion signal is a single motion signal generated from a combination of head, limb, trunk motion and respiratory motion.

145. (NEW) The method in accordance with claim 141, wherein the motion signal includes a first motion signal generated from the head, limb, trunk motion and a second motion signal generated from the respiratory motion.

147. (NEW) The method in accordance with claim 146, wherein the patient is a non-human animal patient.

148. (NEW) The method in accordance with claim 146, wherein the patient is a human patient.

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149. (NEW)   A device for monitoring a patient under medical care, the device comprising a sensor arrangement which is arranged to detect motion of the head, limbs and trunk of the patient and produce a motion signal in response to the motion, and a control means which is arranged to process the motion signal and analyse the motion signal, to determine whether or not the patient is displaying signs of painfulness.

150. (NEW)   The device in accordance with claim 149, wherein the control means is arranged to determine that the patient is displaying signs of painfulness if the motion signal is determined to include rhythmic repetitive motion.

151. (NEW)   The device in accordance with claim 149 wherein the device includes a sensor arrangement for detecting respiratory motion of the patient and producing a motion signal in response to the respiratory motion.

152. (NEW)   The device in accordance with claim 151, wherein the respiratory motion and head, limb, trunk motion are monitored by the same sensor arrangement.

153. (NEW)   The device in accordance with claim 151, wherein the respiratory motion and head, limb, trunk motion are monitored by a separate sensor arrangement.

154. (NEW)   The device in accordance with claim 151, wherein the motion signal is a single motion signal generated from a combination of head, limb, trunk motion and respiratory motion.

155. (NEW)   The device in accordance with claim 151, wherein the motion signal includes a first motion signal generated from the head, limb, trunk motion and a second motion signal generated from the respiratory motion.

156. (NEW)   The device in accordance with claim 149, wherein the patient is a non-human animal patient.

157. (NEW)   The device in accordance with claim 149, wherein the patient is a human patient.

158. (NEW)   The device in accordance with claim 149, arranged to output a graphical output which indicates the rate of motion over a time period of the patient, which can be used to determine the painfulness of the patient.

159. (NEW)   The device in accordance with 149, wherein the sensor arrangement is arranged to monitor respiratory motion of the patient.

160. (NEW) The method in accordance with claim 101, comprising the further step of controlling a peripheral device depending upon the motion of the patient.

161. (NEW) The device in accordance with claim 119, further comprising means for controlling a peripheral device depending upon the motion of the patient.

162. (NEW) The method in accordance with claim 101, wherein the step of monitoring the motion includes the step of monitoring for an increase in rate of motion of the patient over a baseline motion rate, wherein the increase in motion may be due to one or both of bodily motion and respiratory motion.

163. (NEW) The device in accordance with claim 119, the control means being arranged to monitor for an increase in motion over a baseline rate of motion, wherein the increase in motion may be due to one or both of bodily motion and respiratory motion.

164. (NEW) The method in accordance with claim 101, wherein the step of monitoring the motion of a patient is carried out when the patient is recovering from a medical procedure.

165. (NEW) The method in accordance with claim 139, comprising the further step of controlling operation of a peripheral device in response to the analysis.

166. (NEW) The device in accordance with claim 149, further comprising means for controlling operation of a peripheral device, responsive to the control means.